

In the Claims

1-16. (cancelled)

17. (currently amended) A mono component hydrosetting sealant containing as the base compound a silane terminated polymer obtained by addition reaction between an organic derivative of silicon and the terminal functional groups of linear or branched polymers obtained by the Michael polyaddition reaction of sulphhydric acid (H₂S) with organic compounds which can contain a repeating unit and hence have variable molecular weight which have at least two alkenyl double bonds activated by the presence, in the alpha position with respect to each alkylenic bond, of an electronegative group and selected from the group consisting of:

W'[-C(R⁷)=CH₂]₂ (9)

Q[-W-C(R⁷)=CH₂]₂ (9a)

Q[-W-C(R⁷)=CH₂]₃ (9b)

Q[-W-C(R⁷)=CH₂]₄ (9c)

wherein:

W' = electron-attractor group selected from the group consisting of:

-SO-, -SO₂-, -O-, -CO-;

W = electron-attractor group selected from the group consisting of:

-SO-, -SO₂-, -O-, -CO-, -O-CO-;

R⁷ = -H or -CH₃;

Q = divalent, trivalent or tetravalent group selected from the group consisting of hydrocarbon radicals, hetero-hydrocarbon radicals, polyethers, polyesters;

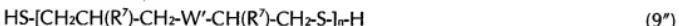
n = an integer greater than or equal to 1;

thereby obtaining, ~~when in particular the compounds of formula (9) or 9(a) are used:~~

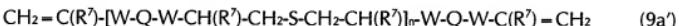
i) in case (n+1) moles of the compound of formula (9) are reacted with n moles of H₂S, the following linear polymer (9')



ii) in case n moles of the compound of formula (9) are reacted with (n+1) moles of H₂S, the following linear polymer (9'')



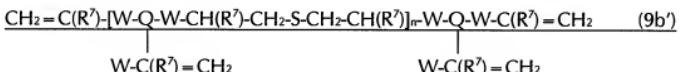
iii) in case (n+1) moles of the compound of formula (9a) are reacted with n moles of H₂S, the following linear polymer (9a')



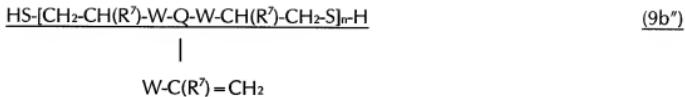
iv) in case n moles of the compound of formula (9a) are reacted with (n+1) moles of H₂S, the following linear polymer (9a'')



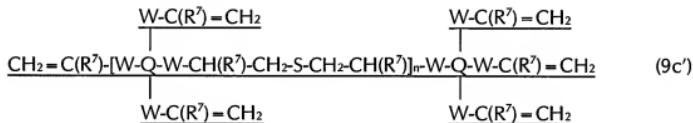
v) in case (n+1) moles of the compound of formula (9b) are reacted with n moles of H₂S, the following polymer (9b')



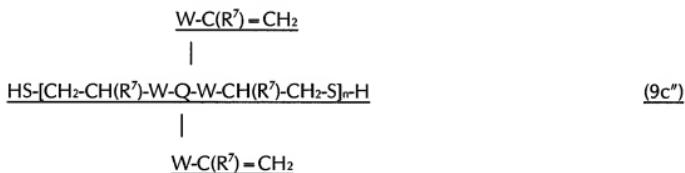
vi) in case n moles of the compound of formula (9b) are reacted with (n+1) moles of H₂S, the following polymer (9b'')



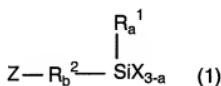
vii) in case $(n+1)$ moles of the compound of formula (9c) are reacted with n moles of H_2S , the following polymer (9c')



viii) in case n moles of the compound of formula (9c) are reacted with $(n+1)$ moles of H_2S , the following polymer (9c'')



18. (previously presented) The sealant of claim 17 in which the organic derivative of silicon has the general formula (1):



with $a = 0, 1, 2$; $b = 0, 1$ and wherein:

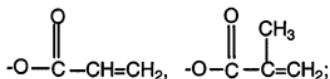
X = selected from the group consisting of halogen, alkoxy, acyloxy, ketoxime, amine, amide and mercaptan radicals;

R¹ = monovalent hydrocarbon group;

R² = divalent substituents selected from the group consisting of hydrocarbon, radicals;

Z = substituents selected from the group consisting of:

H, -SH, -NH₂, -NHR'', -CH-CH₂, -NCO,



in which R'' represents a monovalent hydrocarbon group.

19. (previously presented) The sealant of claim 18 in which the organic compounds of silicon of formula (1) are selected from the group consisting of:

(Isocyanate alkyl)alkoxysilanes:



(Aminoalkyl)alkoxysilanes:



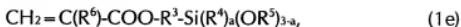
(Glycidoxalkyl)alkoxysilanes:



(Mercaptoalkyl)alkoxysilanes:



([metha]acrylate alkyl)alkoxysilanes:



wherein:

R^3 = divalent alkyl radical containing from 1 to 8 carbon atoms;

R^4 and R^5 = alkyl radicals from 1 to 4 carbon atoms;

R^6 = H or CH_3 ;

$a = 0, 1, 2$.

20. (previously presented) The sealant of claim 19 in which the organic compounds of silicon are selected from the group consisting of:

(3-mercaptopropyl)trimethoxysilane;

(3-mercaptopropyl)methyltrimethoxysilane;

(3-[metha]acryloxypropyl)trimethoxysilane;

(3-acryloxypropyl)trimethoxysilane;

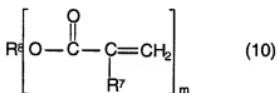
(N-nButyl,3-aminopropyl)trimethoxysilane;

(N-Ethyl,3-aminoisobutyl)methyltrimethoxysilane;

(3-glycidoxypropyl)trimethoxysilane.

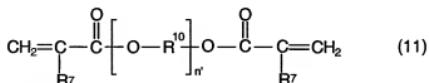
21. (previously presented) The sealant of claim 17 in which the organic compounds having at least two activated double bonds, are selected from the group consisting of: di-, tri-, tetra-acrylates; di-, tri- and tetra-methacrylates; di-, tri- and tetra-vinylsulphones.

22. (previously presented) The sealant of claim 21 in which the organic compounds useful for Michael polyaddition, having at least two activated double bonds, are composed of organic acrylate and/or methacrylates of general formula:



wherein $m = 2, 3, 4$; $\text{R}^7 = \text{H}$ or CH_3 ; R^8 is selected from the group consisting of: di, tri or tetravalent polyethers which consist essentially of chemically combined $-\text{OR}^9-$ units, wherein R^9 is a divalent alkyl group having from 2 to 4 carbon atoms; di-, tri- or tetravalent linear or branched aliphatic alkyl radicals, from 1 to 50 carbon atoms; di-, tri- or tetravalent aromatic radicals, from 6 to 200 carbon atoms; di-, tri- or tetravalent linear or branched aryl radicals, from 6 to 200 carbon atoms; or R^8 is one or more combinations of said polyethers, alkyl radicals, aromatic radicals, aryl radicals.

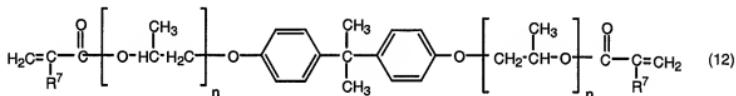
23. (previously presented) The sealant of claim 22 in which the di-acrylate and di-methacrylate organic compounds are selected from the group consisting of:



compounds of formula (11)

wherein

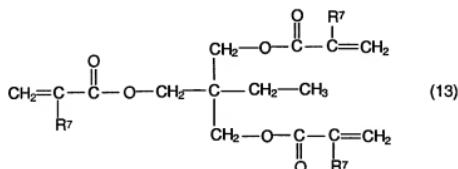
R^7 = H or CH_3 ; R^{10} = selected from the group consisting of $-CH_2-CH(CH_3)-$, $-CH_2-CH_2-$, $-CH_2-CH_2-CH_2-CH_2-$, $-CH_2-CH(CH_3)-CH_2-$, n' = integer comprised of between 1 and 400; compounds of formula (12):

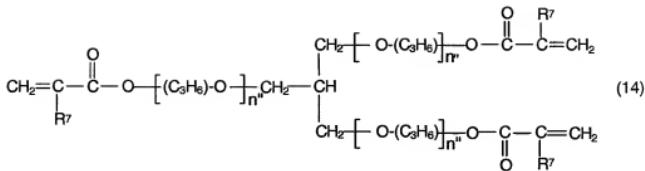


wherein n is an integer comprised of between 0 and 10 and R^7 is H or CH_3 .

24. (previously presented) The sealant of claim 22 in which the di-acrylate organic compounds are the polyisopropylene glycol diacrylates.

25. (previously presented) The sealant of claim 21 in which the tri-acrylate and tri-methacrylate organic compounds are:

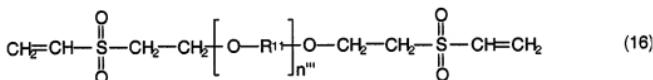




wherein:

$R^7 = H$ or CH_3 ; $n'' =$ an integer comprised of between 0 and 400.

26. (previously presented) The sealant of claim 21 in which the vinyl-sulphonic organic compounds are:



wherein: R¹¹ is selected from the group consisting of $-\text{CH}_2-\text{CH}(\text{CH}_3)-$, $-\text{CH}_2-\text{CH}_2-$, $-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_2-$, $-\text{CH}_2-\text{CH}(\text{CH}_3)-\text{CH}_2-$, n''' = an integer comprised of between 0 and 400.

27. (previously presented) The sealant of claim 17 wherein the base compound silane terminated polymer is prepared by the process comprising:

a) carrying out a polyaddition Michael reaction in the presence of an organic base as the catalyst between of sulphhydric acid (H_2S) with organic compounds which have at least two alkylidene double bonds activated by the presence, in

the alpha position with respect to each alkylenic bond, of an electronegative group, and

b) reacting the linear or branched polymer obtained in step (a) with an organic silicon compound.

28. (previously presented) The sealant of claim 27 in which the organic bases are tertiary amines.

29. (previously presented) The sealant of claim 28 in which the tertiary amines are selected from the group consisting of: triethylamine, 1,8-diazadicyclo[5.4.0.]undecene-7 (DBU), 1,4-diazadicyclo[2.2.2]octane (DABCO).

30. (previously presented) The sealant of claim 29 in which the tertiary amine is 1,8-diazadicyclo[5.4.0.]undecene-7 (DBU).